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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,838	01/13/2004	Frank Wiedmann	02 P 17690	1416
25281	7590	12/13/2005	EXAMINER	
DICKE, BILLIG & CZAJA, P.L.L.C. FIFTH STREET TOWERS 100 SOUTH FIFTH STREET, SUITE 2250 MINNEAPOLIS, MN 55402			NGUYEN, MINH T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

11A

Office Action Summary	Application No.	Applicant(s)	
	10/756,838	WIEDMANN, FRANK	
	Examiner	Art Unit	
	Minh Nguyen	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 23 and 25 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3, 7-10, 12, 13, 16, 21 and 26 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 11, 14, 15, 17, 19, 22 and 24 is/are rejected.
- 7) ☒ Claim(s) 6, 18 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment filed on 09/26/05 has been received and entered in the case. The amendment and argument presented therein overcome the informality objections and prior art rejections noted in the previous Office action, therefore, these are withdrawn. New grounds of rejections necessitated by the amendment are needed as set forth below. This action is FINAL.

Election/Restrictions

2. Newly submitted claims 22-25 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Species I: the first and second intermediate signals transition in a rising edge direction, i.e., claims 22 and 24.

Species II: the first and second intermediate signals transition in a falling edge direction, i.e., claims 23 and 25.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 23 and 25 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-5 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 4, the recited combining step on line 1 lacks clear antecedent basis, i.e., it is unclear if it is referring to the combining step recited on line 6 of claim 3 or the combining step recited on line 8 of claim 3.

As per claim 5, this claim is rejected because of the indefiniteness of claim 4.

As per claim 17, the recitation “each of the k circuits” is misdescriptive, i.e., claim 14 has only “a circuit” not “circuits”.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 11, 14-15, 19, 22 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,285,226, issued to Nguyen.

As per claim 14, Nguyen discloses a device (figure 7A) for producing an output signal (ICLK) that is delayed compared to an input signal (figure 4, CLKIN, column 7, lines 42-44), comprising:

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an input (figure 4, the terminal which receives the CLKIN clock) for receiving the input signal;

at least first (figure 4, delay circuit 220) and second (figure 4, delay circuit 205) delay elements coupled to the input for producing respective intermediate signals (D_CLK and HALF_CLK) in response to the input signal CLKIN; and

a circuit (figure 7A, latch 700) connected to the delay elements to form from the first and second intermediate signals an output signal (D_CLK clock and HALF_CLK are combined by latch 700 to form the output signal ICLK) having each rising edge determined by a corresponding edge transitioning in a first direction of the first intermediate signal and having each falling edge determined by a corresponding edge transitioning in the first direction of the second intermediate signal (figure 7B, D_CLK is the first intermediate signal, HALF_CLK is the second intermediate signal, the output signal is CLKI which is the signal ICLK shown in figure 7A. As shown in figure 7B, the rising edge of ICLK is determined by the rising edge of the D_CLK signal and the falling edge of ICLK is determined by the rising edge of the HALF_CLK signal).

As per claim 15, the recited limitation is shown in figure 4, i.e., delay elements in the delay line 205 are connected in series.

As per claim 19, the recited limitation is met because the delay line 205 comprises a plurality of delay cells.

As per claim 24, the recited limitation is discussed in claim 14 and shown in figure 7B.

As per claim 1, this claim is merely a method to operate a device having the structure discussed in claim 14. Since Nguyen teaches the structure of the device, the method to operate such a structure is inherently taught.

As per claim 2, this claim is rejected for the same reason noted in claim 15.

As per claim 11, Since Nguyen discloses the input signal is a clock signal, he inherently discloses that the clock signal is generated by a circuit. Because this circuit has a delay, the recited “delaying” reads on the delay caused by the circuit.

As per claim 22, this claim is rejected for the same reason noted in claim 24.

Response to Arguments

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

6. Claims 3, 7-10, 12-13, 16, 21 and 26 are allowed.

Claims 3, 7-10, 12-13, 16 and 26 are allowed for the reason noted in the previous Office action.

Claim 21 is allowed for the same reason noted in the previous Office action regarding claim 7.

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7. Claims 6, 18 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 is allowable because the prior art of record fails to disclose or suggest the inclusion of a step of regulating delay so that the intermediate signal with the largest delay experiences a delay of 360 degrees compared to the input signal.

Claim 18 is allowable for the reason noted in claim 6.

Claim 20 is allowable for the reason noted in claim 12.

8. Claims 4-5 and 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 4-5 are allowable for the reason noted in claim 3.

Claim 17 is allowable because the prior art of record fails to disclose or suggest the circuit is a multiplexer.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 571-272-1748. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



12/4/05

Minh Nguyen
Primary Examiner
Art Unit 2816